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Are levels really going?
Yes, the curriculum will be based on a ‘mastery’ approach where we will identify whether the children have achieved the curriculum statements for that key stage. By removing the level descriptors the aim is for there to be a much stronger relationship between the science that children are taught and the science that is assessed.

What should I do first?
Focus on Assessment for Learning; that is where you will make an impact on pupils’ learning. Find out where the children are, plan how to take them on a bit and then find out whether they have understood it. Help them to reflect back to their initial ideas and to say what they have learnt. Ask children to say ‘I used to think xxxx … and now I think yyyy …’ (or ‘and I still think xxxxx …. makes sense’) because ‘…’. You can share the learning objective, agree what it would look like to be successful and ask the children to judge where they are.

How will I know whether they have achieved the year group’s objectives?
Plan lessons in which the children can show you, lessons that clearly lead to the meeting of a learning intention linked to the programme of study (PoS) objectives. Elicit their ideas with questions, discussion, concept cartoons, annotated pictures, floor-books, deciding whether statements are true or false, sorting, a quiz, problem solving, exploration, enquiry and so on. There is no set way of doing this, but success criteria will be helpful. Make a judgement, ideally with the child, about whether they have achieved the objective. You can discuss informally with colleagues to moderate. In time, groups of schools or projects such as TAPS at Bath Spa (see PSTT article in this issue and updates on the PSTT website) might develop electronic portfolios with examples of children’s work so that teachers can build up a picture of what mastery of a curriculum statement looks like. This will help to develop consistency in teachers’ judgements.

Do I have to record a judgement each lesson then?
You do not have to do this for every lesson; select the lessons that are key to the year group objectives. There may be many lessons that lead up to this. You could work on the assumption that most will have achieved the objectives; just make a note of who hasn’t and who has gone further.

How do I track progression when the units have all changed?
In time, as the new curriculum beds in, we will find new ways to do this. As before, you must judge how children have performed against the learning intentions. Across terms and year groups don’t forget to look for progression in the Working Scientifically PoS. It is in the development of children’s skills in asking questions, planning, collecting and analysing data, drawing conclusions and evaluating that you will be able to track progression. To track mastery of the conceptual knowledge, use a broad range of evidence, for instance, do they know what a term means, can they explain it and apply it in an unfamiliar context?

How do I set targets and track progression across the years?
Each teacher could keep a record of those children who have exceeded expectations, met the expectations and who are making progress towards the expectations. If they exceeded expectations in Working Scientifically in year 2, then you could set a target for them to exceed expectations in year 4 and so on.

Do I need to revise for the sample tests?
No, the sample will be a small number of children (a group of five rather than a whole class) from a small number of schools. The biannual sampling will provide anonymous information about children’s achievement against the PoS for science across the country: individual child or school results will not be available. (See www.education.gov.uk/a00227496/sciencesampling).

Do I need to buy tests?
A test will only give you a small amount of information; it will not tell you everything the child knows or can do. Tests are not useful for telling us about Working Scientifically, which is the progressive thread in the PoS and at the heart of science. Teacher assessment is based upon the full range of experiences you have with the children and is more valid.

Should I start APP?
No, it does not match the new Working Scientifically. Those schools that have found APP useful in the past may select elements that support them to plan for progression, but, if you are able to, start from the new curriculum descriptors. Discuss what these will look like with your staff. This kind of moderation discussion is excellent science CPD.

Do I have to change everything straight away?
No, the process of moving to a mastery curriculum will take time. Consider small, manageable steps that will support your teachers in developing children’s learning in science.

Sarah Earle is a senior lecturer in Primary PGCE Science at Bath Spa University.